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|       |      |       |  |

Application/Control No.

10/516,915

Examiner

Amy E. Juedes, Ph.D.

Applicant(s)/Patent under Reexamination

KARLSSON-PARRA ET AL.

Art Unit

1644

| <b>√</b> | Rejected |
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| =        | Allowed  |

| 1 | (Through numeral)<br>Cancelled |
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| Ļ | Restricted                     |

| Z | Non-Elected  |
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| _ | Interference |

| A | Appeal   |
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| <u> </u>    | 1        | +        | <del> </del>                                     | ├  | $\vdash$   | H  | $\vdash$   |          | -  |          |   |  | 51       | $\dashv$        | $\dashv$ | $\dashv$ | _        | _        | $\vdash$         | H |
| <u> </u>    | 2        | +        | $\vdash$   | ┝  | H  | <del> </del>                                     | $\vdash$   |          |  | -        |   |  | 52       | -+              | $\dashv$ | _        | -        | _        | $\vdash$         | ┝ |
|             | 3        | Н        | -  | ⊢  | _  | $\vdash$   | -  | -        | -  | $\vdash$ |   |  | 53       | $\dashv$        | ┰┼       | -        | -        | _        | $\vdash$         | ╁ |
| -           | 4        | H        | -  |  |  | H  | -  | H        | _  | $\vdash$ |   |  | 54       | $\dashv$        | $\dashv$ | -        | -        | _        | $\vdash$         | H |
| <del></del> | 5        | H        | -  |  | -  | ┝  | $\vdash$   | $\vdash$ | $\vdash$   | $\vdash$ |   |  | 55       | -1              | -        |          |          |          | $\vdash$         | H |
| <b></b>     | 6        | H        | -  | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | ├─       |  | $\vdash$ |   |  | 56       | $\dashv$        | -+       | -        | -        |          |                  | H |
|             | 7        | H        | -  | ┢  |  | ┢─   | $\vdash$   |          |  | -        |   |  | 57       | -               | $\dashv$ |          |          |          | _                | t |
| -           | 8        | 1        |  | $\vdash$   |  | -  | $\vdash$   | $\vdash$ | _  |          |   |  | 58       | -               | $\dashv$ | _        |          | _        |                  | t |
|             | 9        | H        | H  |  |  | -  | $\vdash$   |          | -  | -        |   |  | 59       | $\neg \dagger$  | _        |          | _        |          |                  | t |
| $\vdash$    | 10       | #        | $\vdash$   | $\vdash$   |  | $\vdash$   |  |          | _  | _        |   |  | 60       |                 | 1        |          |          |          | $\Box$           | T |
|             | 11       | 4        |  | _  |  | $\vdash$   |  |          |  |          |   |  | 61       | $\Box$          |          |          |          |          |                  | T |
|             | 12       | +        |  | $\vdash$   |  |  |  | -        |  |          |   |  | 62       |                 | $\neg$   |          |          |          |                  | T |
|             | 13       | o        |  |  |  |  |  |          | _  |          |   |  | 63       | $\Box$          |          |          |          |          |                  | T |
|             | 14       | +        |  | Г  |  |  |  |          | Г  | Г        |   |  | 64       |                 |          |          |          |          |                  | Γ |
|             | 15       | 0        |  | Г  |  |  |  |          | $\vdash$   | Г        |   |  | 65       |                 |          |          |          |          |                  | T |
|             | 16       |          | П  | _  |  |  |  |          |  |          |   |  | 66       |                 |          |          |          |          |                  | Γ |
|             | 17       |          |  |  |  |  |  |          |  |          |   |  | 67       |                 |          |          |          |          |                  | T |
|             | 18       |          |  | Г  |  |  |  |          |  |          | l |  | 68       |                 | $\neg$   |          |          |          | П                | T |
|             | 19       |          |  |  |  | Г  |  |          |  |          |   |  | 69       |                 | 丁        |          |          |          | П                | T |
|             | 20       |          |  |  | T  | Г  |  |          |  |          | i |  | 70       |                 | 丁        |          |          |          | Γ                | T |
|             | 21       |          |  |  |  |  |  | Г        |  |          |   |  | 71       |                 |          |          |          |          |                  | Γ |
|             | 22       |          |  |  |  |  |  | Г        |  |          | l |  | 72       |                 |          |          |          |          |                  | Γ |
|             | 23       |          | Г  |  |  |  |  |          |  |          |   |  | 73       |                 | $\neg$   |          |          |          |                  | Γ |
|             | 24       |          |  |  |  |  |  |          |  |          |   |  | 74       |                 |          |          |          |          |                  | Ţ |
|             | 25       |          |  |  |  |  |  |          |  |          |   |  | 75       |                 |          |          |          |          |                  | I |
|             | 26       |          | L  |  |  |  | Ĺ  |          |  |          |   |  | 76       |                 |          |          |          | <u> </u> |                  | L |
|             | 27       |          | L  | _  |  |  |  |          | L  | L        |   |  | 77       |                 |          |          |          |          | <u>_</u>         | L |
|             | 28       | _        |  | 匚  |  |  |  | _        |  | <u> </u> |   |  | 78       | $\Box$          | _        |          |          |          |                  | L |
| <u> </u>    | 29       | _        | <u> </u>   | L  | _  | _  | _  | _        |  |          |   |  | 79       |                 | _        |          | _        |          |                  | Ļ |
|             | ∙30      |          | <u> </u>   | L  |  | _  | _  | _        |  | <u>_</u> | l |  | 80       |                 | _        |          |          | _        |                  | Ļ |
|             | 31       |          | ┖  |  |  | <u> </u>   | 匚  | _        |  | <u> </u> | Į |  | 81       | _               | 4        |          |          | _        | _                | 1 |
| <u> </u>    | 32       | <u> </u> | <u> </u>   | _  | L  | <u> </u>   | _  | L        | _  | <u> </u> | ļ |  | 82       | -               | _        |          |          |          | _                | ļ |
| <u> </u>    | 33       | <u> </u> | <u> </u>   | _  |  | _  | _  | _        |  | _        | l | <u> </u>   | 83       | $\dashv$        | _        |          |          | <u> </u> | <u> </u>         | ļ |
| <u></u>     | 34       | ₩        | <u> </u>   | <u> </u>   | <del> </del>                                     | ├  | <b> </b>   | _        |  | <u> </u> | l | <u> </u>   | 84       | $\dashv$        | $\dashv$ | -        | _        | -        | ├-               | ╀ |
| <u> </u>    | 35       | <u> </u> | ⊢  | $\vdash$   | <del> </del>                                     | -  | _  | $\vdash$ | $\vdash$   | ├        | l | ├—   | 85       | $\vdash \vdash$ | $\dashv$ |          |          | <u> </u> | ├                | + |
| <u> </u>    | 36       | $\vdash$ | <b>—</b>   | $\vdash$   | <u> </u>   | <b> </b>   | <u> </u>   | ⊢        | <u> </u>   | <u> </u> | 1 | <u> </u>   | 86       | Н               | $\dashv$ |          | <u> </u> | ⊢-       | <del> </del>     | + |
|             | 37       | ₩        |  | ├—   | ├  | -  | 1—   | ⊢        | ├  | ⊢        |   | -  | 87       | $\vdash \vdash$ | -        | _        | <u> </u> | $\vdash$ | $\vdash$         | ╀ |
|             | 38       | +-       | $\vdash$   | <del> </del>                                     | <del> </del> —                                   | <del> </del> —                                   | ├  | -        | ├-   | $\vdash$ | ł |  | 88       | $\vdash$        | $\dashv$ |          |          | ⊢        | $\vdash$         | + |
|             | 39       | ⊢        | -  | <del> </del>                                     | <u> </u>   | -  | <del>                                     </del> | -        | <del> </del>                                     | ⊢        | ł | <u> </u>   | 89       | $\vdash$        |          |          | <u> </u> | $\vdash$ | $\vdash$         | ł |
| <u> </u>    | 40       | ╀        | $\vdash$   | ⊢  | -  | $\vdash$   | $\vdash$   | +        | -  | $\vdash$ | ł |  | 90       | $\vdash$        |          |          | <u> </u> | ├        | ₩                | t |
| -           | 41       | ╌        | ╁  | $\vdash$   | $\vdash$   | -  | $\vdash$   | -        | ├  | $\vdash$ | ł | <u> </u>   | 92       |                 | $\dashv$ | _        | _        | ├        | $\vdash$         | t |
| -           | 43       | $\vdash$ | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$ | <del>                                     </del> | -        | ł | <b> </b>   | 93       | Н               | -        |          | $\vdash$ | ├─       | ├                | t |
| $\vdash$    | 44       | +-       | <del> </del>                                     | $\vdash$   | $\vdash$   | <del>  -</del>                                   | $\vdash$   | $\vdash$ | <del>                                     </del> |          | ł | <b></b>  | 94       | $\vdash$        | $\dashv$ | _        | -        | ├-       | <del>  -  </del> | t |
|             | 45       | +        | $\vdash$   | ╁  | <del>                                     </del> | <del>                                     </del> | $\vdash$   | $\vdash$ | <del>                                     </del> | $\vdash$ | l | <del>                                     </del> | 95       | Н               | +        | _        | _        | $\vdash$ | t                | t |
| -           | 46       | 1        | <del>                                     </del> | $\vdash$   | $\vdash$   | $\vdash$   | ╁  | 1        | $\vdash$   | ╁        | l | <u> </u>   | 96       | Н               | -        | _        | $\vdash$ | ┢        | $\vdash$         | t |
| _           | 47       | +        | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$ | ┢  | ┢        |   |  | 97       | H               | +        | _        | $\vdash$ | ┰        | $\vdash$         | t |
| <u> </u>    | 48       | +        | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | <del>                                     </del> | $\vdash$ | $\vdash$   | ┢        | 1 | $\vdash$   | 98       | Н               | $\dashv$ | -        | $\vdash$ | H        | $\vdash$         | t |
|             | 49       | <b>†</b> | 1  | <del>                                     </del> | $\vdash$   | 1  | $\vdash$   | 1        | $\vdash$   | 1        | 1 |  | 99       | $\Box$          | $\dashv$ | _        | Г        | Н        | T                | t |
| <b>—</b>    | 50       |          | Т  | $\vdash$   | <del>                                     </del> | <del>                                     </del> | $\vdash$   | 1        | 1-   | Н        | 1 | $\vdash$   | 100      | Н               | $\dashv$ | _        | $\vdash$ |          | $\vdash$         | t |
|             |          | -        |  |  | Ь.   |  |  |          |  |          | , |  |          | ш-              | _        |          |          |          |                  | _ |

| <u> </u> | Clairii  |                |          | - Date   |                |          |          |          |            |          |          |  |  |  |
|----------|----------|----------------|----------|----------|----------------|----------|----------|----------|------------|----------|----------|--|--|--|
|          | Final    | Original       |          |          |                |          |          |          |            |          |          |  |  |  |
|          |          | 51             |          | $\neg$   |                | _        | Н        |          |            |          |          |  |  |  |
| $\vdash$ | -        | 51<br>52       | _        |          | -              | Н        | -        |          | -          | $\dashv$ |          |  |  |  |
| ⊢        | _        | 53             | -        | _        |                | Н        | Н        | -        | _          | $\dashv$ |          |  |  |  |
| -        | $\dashv$ | 53             | -        |          |                | _        | _        | _        | _          | -        |          |  |  |  |
| $\vdash$ | _        | 54<br>55       | -        |          |                |          |          | Н        |            |          | _        |  |  |  |
| -        |          | 22             | _        |          |                |          |          |          |            |          |          |  |  |  |
| -        | -        | 56             | _        | _        | -              |          | _        |          | -          |          |          |  |  |  |
| $\vdash$ | -        | 57             |          |          |                |          |          |          | -          | _        | _        |  |  |  |
| $\vdash$ |          | 58             |          |          | _              | -        |          | _        | _          | $\dashv$ | _        |  |  |  |
| -        | _        | 59             |          |          |                |          |          | _        | _          | $\dashv$ |          |  |  |  |
| ⊢        | _        | 60             | $\vdash$ | _        | _              | $\vdash$ | Н        | _        | _          | $\vdash$ |          |  |  |  |
| ⊢        | _        | 61             |          | _        | <u> </u>       | _        | Н        | _        |            | $\vdash$ |          |  |  |  |
| ⊢        |          | 62<br>63       | _        |          | _              | <u> </u> | Н        |          |            | $\vdash$ |          |  |  |  |
| $\vdash$ | _        | 63             |          |          | -              | _        | $\vdash$ | _        | _          | $\vdash$ |          |  |  |  |
| $\vdash$ |          | 64             | -        | _        | -              | _        | -        |          |            | -        |          |  |  |  |
| $\vdash$ |          | 65             |          | _        | <u> </u>       |          |          |          |            |          |          |  |  |  |
| ⊢        |          | 66             |          | _        | <u> </u>       | $\vdash$ | Н        | _        |            | -        |          |  |  |  |
| -        |          | 67             |          |          | -              |          | Н        |          |            | -        |          |  |  |  |
| -        |          | 68<br>69       |          | _        | <u> </u>       |          | H        |          |            | Н        |          |  |  |  |
| ⊢        | _        | 70             |          |          | -              | _        | -        | -        |            | -        |          |  |  |  |
| $\vdash$ |          | 70<br>71       |          |          | ⊢              | -        | -        | _        |            | -        | _        |  |  |  |
| $\vdash$ | _        | 72             |          |          | <del> </del> — |          | -        |          |            | Н        | _        |  |  |  |
| ⊢        |          | 73             | _        | $\vdash$ | $\vdash$       | $\vdash$ | $\vdash$ | -        |            |          |          |  |  |  |
| $\vdash$ |          | 74             |          |          | $\vdash$       | -        | -        |          |            | $\vdash$ | _        |  |  |  |
| -        |          | 73<br>74<br>75 |          |          |                | -        | -        |          |            | -        | -        |  |  |  |
| -        | _        | 76             |          |          | $\vdash$       | $\vdash$ | $\vdash$ |          |            | -        |          |  |  |  |
|          |          | 76<br>77       |          |          | H              | -        | -        | _        | _          | -        | _        |  |  |  |
| 一        | -        | 78             |          |          | <u> </u>       | $\vdash$ | $\vdash$ | Н        | _          | -        |          |  |  |  |
| $\vdash$ | _        | 78<br>79       |          |          | $\vdash$       | $\vdash$ |          |          | _          |          |          |  |  |  |
| ┢        |          | 80             |          |          |                |          |          |          |            |          |          |  |  |  |
| $\vdash$ |          | 81             |          |          | _              |          |          | -        |            |          |          |  |  |  |
|          |          | 81<br>82       |          |          | Г              |          |          |          |            |          | _        |  |  |  |
|          |          | 83             |          |          |                |          |          |          |            |          | -        |  |  |  |
|          |          | 84<br>85       |          | Г        | Г              |          |          |          |            |          |          |  |  |  |
|          |          | 85             |          |          |                |          | Г        |          |            |          |          |  |  |  |
|          |          | 86             |          |          |                |          |          |          |            |          |          |  |  |  |
|          |          | 87             |          |          |                |          |          |          |            |          |          |  |  |  |
| Г        |          | 88             |          |          | Г              |          |          |          |            |          |          |  |  |  |
|          |          | 89             |          |          |                |          |          |          |            |          |          |  |  |  |
|          |          | 90             |          |          |                |          |          |          |            |          |          |  |  |  |
|          |          | 91             |          |          |                |          | L        |          |            |          |          |  |  |  |
|          |          | 92             |          |          |                | _        |          | _        |            | L        |          |  |  |  |
| L        |          | 93             | <u> </u> |          | _              | L_       |          | L_       | L          | L        |          |  |  |  |
| L        |          | 94             | <u> </u> | <u> </u> | <u> </u>       |          | L        |          | L_         | L        | <u> </u> |  |  |  |
| L        |          | 95             | <u> </u> | <u> </u> | <u> </u>       | <u> </u> | L_       | <u> </u> | lacksquare | <u> </u> | L        |  |  |  |
|          |          | 96             | <u> </u> | <u> </u> | _              | <u> </u> | <b>!</b> | <u> </u> | <u> </u>   | <u> </u> | L        |  |  |  |
| $\vdash$ |          | 97             | <u> </u> | <u> </u> | <b> </b>       |          | <b>—</b> | ⊢        | $\vdash$   | ├-       | L        |  |  |  |
| -        |          | 98             | ├        | <u> </u> | <del> </del>   | $\vdash$ | ├-       | ├—       | <u> </u>   | ├-       | $\vdash$ |  |  |  |
| $\vdash$ |          | 99             | <u> </u> | <u> </u> | -              | ⊢        | -        | ├        | <u> </u>   | -        | <u> </u> |  |  |  |
|          |          |                |          |          |                |          |          |          |            |          |          |  |  |  |

| Cla      | aim                                    | Date     |          |          |          |              |          |              |          |                 |  |  |
|----------|--|----------|----------|----------|----------|--------------|----------|--------------|----------|-----------------|--|--|
|          |  |          |          |          |          |              |          |              |          |                 |  |  |
| Final    | Original                               |          |          |          |          |              |          |              |          |                 |  |  |
| ᇤ        | Orig                                   |          |          |          |          |              |          |              |          |                 |  |  |
|          |  |          |          |          |          |              |          |              |          |                 |  |  |
|          | 101<br>102<br>103                      |          |          |          |          |              |          |              |          |                 |  |  |
|          | 102                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 103                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 104<br>105                             |          |          |          | L        |              |          |              |          |                 |  |  |
|          | 105                                    |          |          |          |          |              | Ш        |              |          | Щ               |  |  |
|          | 106                                    |          |          |          |          |              |          |              |          | Щ               |  |  |
|          | 107                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 108                                    | Ш        |          | _        | <u> </u> |              | _        |              |          | _               |  |  |
|          | 109<br>110                             | ·        |          | _        |          |              | L        | _            |          | Щ               |  |  |
|          | 110                                    |          |          | _        | _        | L            | <u> </u> |              |          |                 |  |  |
|          | 111                                    | Щ        |          | L        | $\vdash$ | Щ            | <u> </u> | L.,          | <u> </u> | $\square$       |  |  |
|          | 112                                    |          |          |          |          |              | _        |              |          | Щ               |  |  |
|          | 112<br>113<br>114<br>115<br>116<br>117 | Щ        | ļ.,      | ļ        | <u> </u> | $\vdash$     | <b> </b> |              | <b> </b> | $\vdash \vdash$ |  |  |
| <u> </u> | 114                                    | Ш        |          | _        |          | _            | <u> </u> |              | _        | _               |  |  |
| <u> </u> | 115                                    | _        |          | <u> </u> | $\vdash$ | <u> </u>     | <u> </u> | <u> </u>     | ļ        | $\sqcup$        |  |  |
|          | 116                                    | _        |          | _        |          |              | _        |              | _        | -               |  |  |
|          | 117                                    |          |          | _        | <u> </u> |              |          | _            |          | Щ               |  |  |
|          | 118<br>119                             | _        |          | <u> </u> | <u> </u> | <u> </u>     |          |              |          | Н               |  |  |
|          | 119                                    |          |          | _        | <u> </u> | ļ            |          | <u> </u>     |          | Ш               |  |  |
|          | 120                                    | _        | _        |          | _        | <u> </u>     | _        | _            | L        | Н               |  |  |
|          | 120<br>121<br>122                      | <u> </u> | _        |          | _        | <u> </u>     | _        | _            |          | Н               |  |  |
|          | 122                                    | <u> </u> |          | _        | ├-       |              |          | ┡            | _        | Щ               |  |  |
|          | 123<br>124<br>125                      |          |          | <u> </u> | <u> </u> | ⊢            | -        | <del> </del> | -        | Н               |  |  |
|          | 124                                    | _        |          | _        | _        | <del> </del> | -        | -            | -        | Н               |  |  |
|          | 125                                    |          |          | -        | <u> </u> | ⊢            | -        |              | -        | Н               |  |  |
| <u> </u> | 126<br>127<br>128<br>129               |          | _        | -        | -        | -            | ⊢        | ┝            | H        | Н               |  |  |
| ├        | 120                                    | -        | _        | -        | _        | ┝            | ┝        | _            |          | Н               |  |  |
| -        | 120                                    | -        | H        |          | -        | ┝            | -        |              | -        | $\vdash$        |  |  |
| ļ        | 130                                    | $\vdash$ | -        | ┝        | ⊢        | -            | -        | H            | -        | Н               |  |  |
|          | 131                                    | -        | $\vdash$ | -        | $\vdash$ | $\vdash$     | -        | -            | ┝        | Н               |  |  |
| -        | 131<br>132                             | $\vdash$ | $\vdash$ | $\vdash$ | $\vdash$ | -            | ├        | -            | H        | Н               |  |  |
|          | 133                                    | -        | ┢        | ┝        | ╁        | ┝            | $\vdash$ | <del> </del> | ┢─       | Н               |  |  |
| <u> </u> | 134                                    | -        | $\vdash$ | -        | ┢        | $\vdash$     |          | -            | $\vdash$ | Н               |  |  |
|          | 134<br>135                             | Т        | _        | _        | _        | _            | $\vdash$ |              |          |                 |  |  |
|          | 136                                    |          | _        |          | $I^-$    |              | $\vdash$ |              | Т        | П               |  |  |
|          | 137                                    |          | _        |          | Т        | Г            | ┪        |              | $\vdash$ | П               |  |  |
|          | 137<br>138                             |          | $\vdash$ | Т        | Г        |              |          | $\vdash$     | $\vdash$ |                 |  |  |
|          | 139                                    | 1        | Г        | Γ        | Г        |              |          | Г            | Γ        |                 |  |  |
|          | 139<br>140                             | T-       |          |          |          |              |          | Г            | Г        |                 |  |  |
|          | 141                                    | Г        | Г        | Γ        | Г        | Г            |          |              |          | П               |  |  |
|          | 142                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 143                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 144                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 145                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 146                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 147                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 148                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          | 149                                    |          |          | $\Box$   |          |              |          |              |          |                 |  |  |
|          | 150                                    |          |          |          |          |              |          |              |          |                 |  |  |
|          |  |          |          |          |          |              |          |              |          |                 |  |  |